



## **COMMUNITY RISK REDUCTION MANUEL**

### **FIRE ALARM SYSTEMS**

#### **407.004 HVAC SHUTOFF FOR FIRE ALARMS**

**EFFECTIVE: AUGUST 2013**

### **SCOPE**

Heating Ventilation and Air Conditioning (HVAC) system shutoff for fire alarm installations.

### **PURPOSE**

The purpose of this policy is to clarify the Department's policy related to HVAC shutdown and fire alarm interconnection.

### **BACKGROUND**

The California Mechanical Code (CMC), Section 609.0, requires an HVAC automatic shutoff where air moving systems supply air in excess of 2000 cfm (944L/s). Where these systems are interconnected to the fire alarm system, the fire detection or alarm system must supervise these systems.

The CMC however, does not provide requirements as to whether individual units supplying air in excess of 2000 cfm (944L/s) must all shut off, or if all HVAC units must shut off in the event of an alarm or supervisory signal.

Standard engineering guidelines note that HVAC systems may move smoke from one location in a building to another and potentially supply combustion air to a fire. It can also aid in detection, especially in an unoccupied area.

### **REQUIREMENTS**

Based upon the identified risks, the Department has determined that:

Where a fire alarm system is installed and the HVAC system has a cumulative total volume of supply air in excess of 2000 cfm (944L/s) (regardless of the number of actual units) it shall be interconnected to the fire alarm system.

Where an HVAC system has a cumulative total volume of supply air in excess of 2000 cfm (944L/s) (regardless of the number of actual units) and duct detector initiates an alarm or supervisory signal, every HVAC unit for the building must

shutdown simultaneously and the fire alarm system shall transmit the appropriate signal as necessary.

Exception: Dedicated function fire alarm systems used solely for the purpose of waterflow supervision, valve supervision, fire pump supervision, HVLS fan shut off, elevator recall or commercial cooking extinguishing system supervision are not required to be interconnected to, or provide HVAC supervision or shutoff.

#### NOTE

In an instance where no single HVAC unit is equipped with a smoke detector, (i.e. no one HVAC unit flows in excess of 2000 cfm of supply air), the largest single unit shall be fitted with a smoke detector to initiate HVAC shutoff.

These requirements apply to both required and voluntary systems.